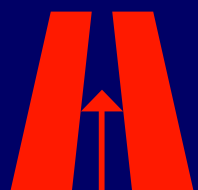




# **Diagnostic Tests for Children With Hypertension**

- **Urinalysis**
- **Blood profile**
- **Blood urea nitrogen (BUN)**
- **Serum creatinine**
- **Lipid profile**



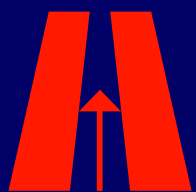
# **New Blood Pressure Tables**

<b>Data Sources</b>	<b>Age</b>	<b>Number</b>
NHANES II	6 - 17	3,652
NHANES III	5 - 17	5,098
University of Pittsburgh	1 - 5	287
University of Texas-Dallas	13 - 17	11,565
Bogalusa, Louisiana	1 - 17	7,363
University of Texas-Houston	3 - 17	2,835
University of South Carolina	4 - 17	6,431
Muscatine, Iowa	5 - 17	4,093
Providence, Rhode Island	1 - 3	462
Minnesota	9 - 17	19,420
<b>Total Sample Size</b>		<b>61,206</b>



## **New Blood Pressure Tables: Gender and Ethnic Groups in Data Sources**

<b>Boys</b>	<b>31,158</b>	<b>51%</b>
<b>Girls</b>	<b>30,048</b>	<b>49%</b>
<b>White</b>	<b>34,002</b>	<b>56%</b>
<b>Black</b>	<b>17,445</b>	<b>29%</b>
<b>Hispanic</b>	<b>5,322</b>	<b>9%</b>
<b>Asian</b>	<b>1,765</b>	<b>3%</b>
<b>Native American</b>	<b>654</b>	<b>1%</b>
<b>Other/Missing</b>	<b>2,018</b>	<b>3%</b>



## Blood Pressure levels for the 90th and 95th percentiles of blood pressure for boys age 1 to 17 years by percentiles of height

### Systolic BP (mm Hg) by percentile of height

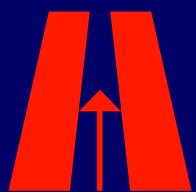
Age	%ile	5%	10%	25%	50%	75%	90%	95%
1	90th	94	95	97	98	100	102	102
	95th	98	99	101	102	104	106	106
2	90th	98	99	100	102	104	105	106
	95th	101	102	104	106	108	109	110
3	90th	100	101	103	105	107	108	109
	95th	104	105	107	109	111	112	113
16	90th	125	126	128	130	132	133	134
	95th	129	130	132	134	136	137	138
17	90th	128	129	131	133	134	136	136
	95th	132	133	135	136	138	140	140



## Blood Pressure levels for the 90th and 95th percentiles of blood pressure for boys age 1 to 17 years by percentiles of height

### Diastolic BP (mm Hg) by percentile of height

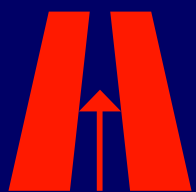
Age	%ile	5%	10%	25%	50%	75%	90%	95%
1	90th	50	51	52	53	54	54	55
	95th	55	55	56	57	58	59	59
2	90th	55	55	56	57	58	59	59
	95th	59	59	60	61	62	63	63
3	90th	59	59	60	61	62	63	63
	95th	63	63	64	65	66	67	67
16	90th	79	79	80	81	82	82	83
	95th	83	83	84	85	86	87	87
17	90th	81	81	82	83	84	85	85
	95th	85	85	86	87	88	89	89



## Blood Pressure levels for the 90th and 95th percentiles of blood pressure for girls age 1 to 17 years by percentiles of height

### Systolic BP (mm Hg) by percentile of height

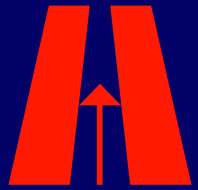
Age	%ile	5%	10%	25%	50%	75%	90%	95%
1	90th	97	98	99	100	102	103	104
	95th	101	102	103	104	105	107	107
2	90th	99	99	100	102	103	104	105
	95th	102	103	104	105	107	108	109
3	90th	100	100	102	103	104	105	106
	95th	104	104	105	107	108	109	110
16	90th	122	122	123	125	126	127	128
	95th	125	126	127	128	130	131	132
17	90th	122	123	124	125	126	128	128
	95th	126	126	127	129	130	131	132



## Blood Pressure levels for the 90th and 95th percentiles of blood pressure for girls age 1 to 17 years by percentiles of height

### Diastolic BP (mm Hg) by percentile of height

Age	%ile	5%	10%	25%	50%	75%	90%	95%
1	90th	53	53	53	54	55	56	56
	95th	57	57	57	58	59	60	60
2	90th	57	57	58	58	59	60	60
	95th	61	61	62	62	63	64	65
3	90th	61	61	61	62	63	63	64
	95th	65	65	65	66	67	67	68
16	90th	79	79	79	80	81	82	82
	95th	83	83	83	84	85	86	86
17	90th	79	79	79	80	81	82	82
	95th	83	83	83	84	85	86	86



# Using the Charts

- Gender
- Age
- Height percentile
- Measured SBP and DBP

**Note:** For infants, refer to the Second Task Force Report





## Using the Charts: Example

- Gender: Boy
- Age 7
- Height: 50th percentile
- Systolic BP 105 mm Hg
- Diastolic BP: 65 mm Hg



## Using the Charts: Example (continued)

1. Use chart for 90th percentile for boys.
2. Find age (7) on right side of chart for DBP.
3. Follow age line to intersection with height percentile (50th).
4. Move up or down height percentile line to DBP (65 mm Hg).  
**Result:** Moving down on 90th percentile chart denotes “normal BP.”
5. Repeat steps 1-4 for SBP on 90th percentile chart.



## Using the Charts: Example (continued)

- If you move up to find BP on the charts (step 4) for 90th percentile of BP, repeat steps 1-4 on 95th percentile chart.

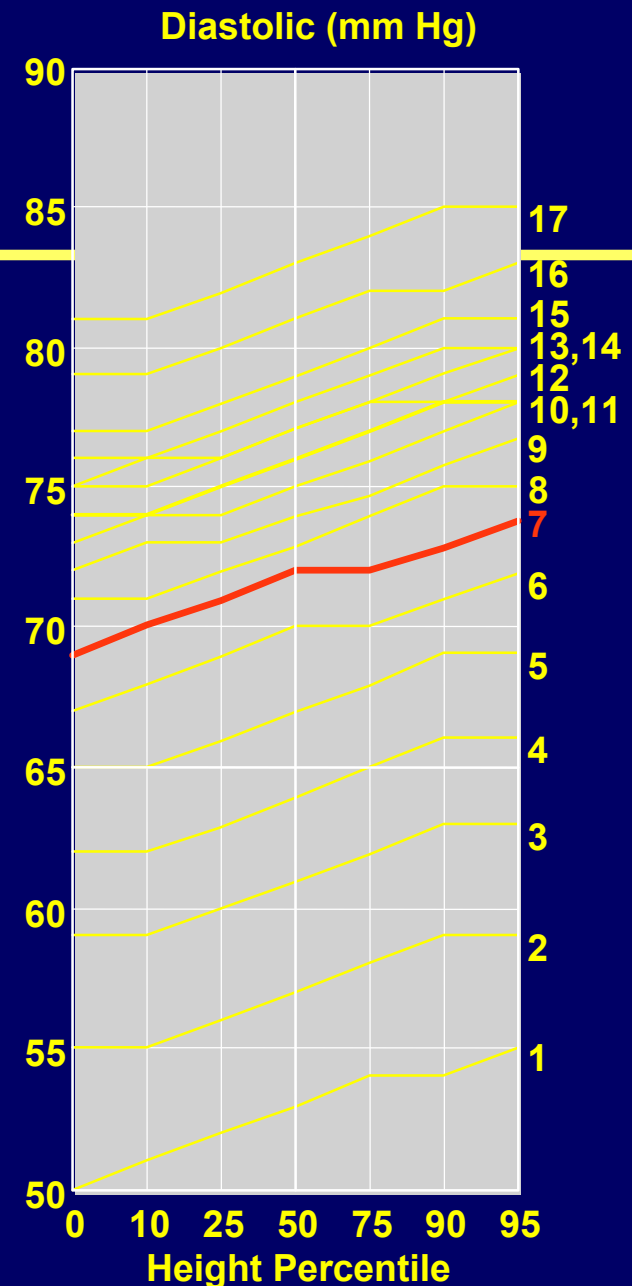
**Result:** Moving down on chart for 95th percentile denotes “high-normal BP.”

Moving up on chart for 95th percentile denotes “hypertension.”



## Using the Charts: Example

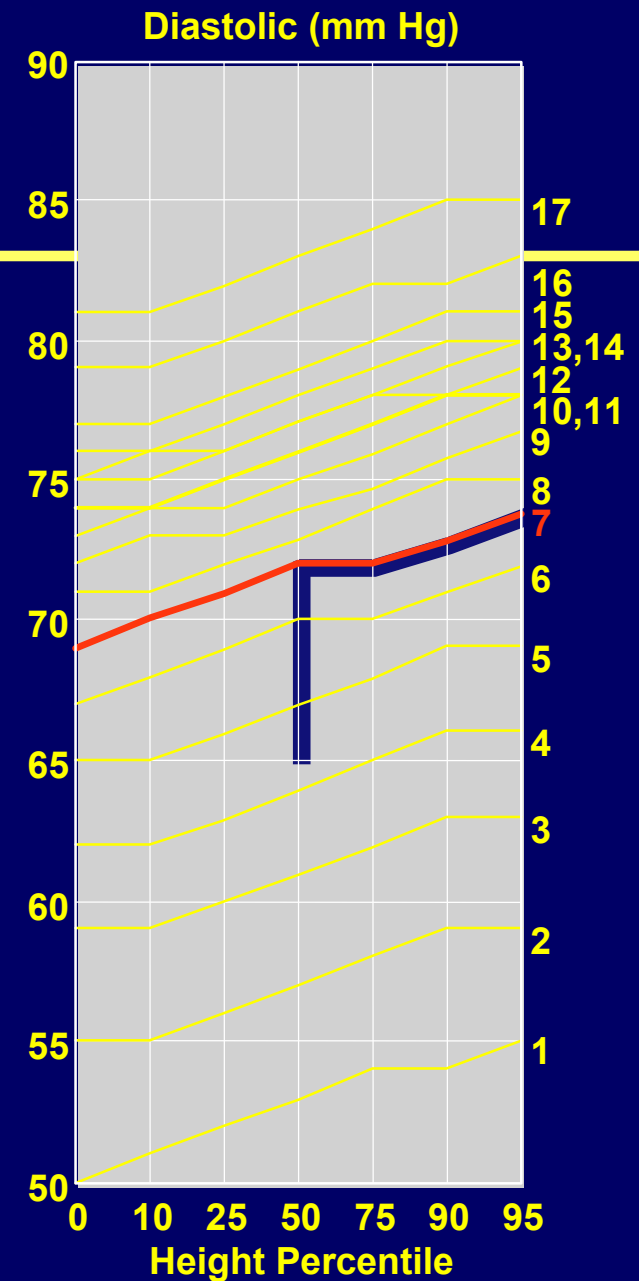
1. Use chart for 90th percentile DBP for boys.
2. Find age (7) on right side of chart for DBP.





## Using the Charts: Example

3. Follow age line intersection with height percentile (50th).
4. Move up or down height percentile line to DBP (65 mm Hg).

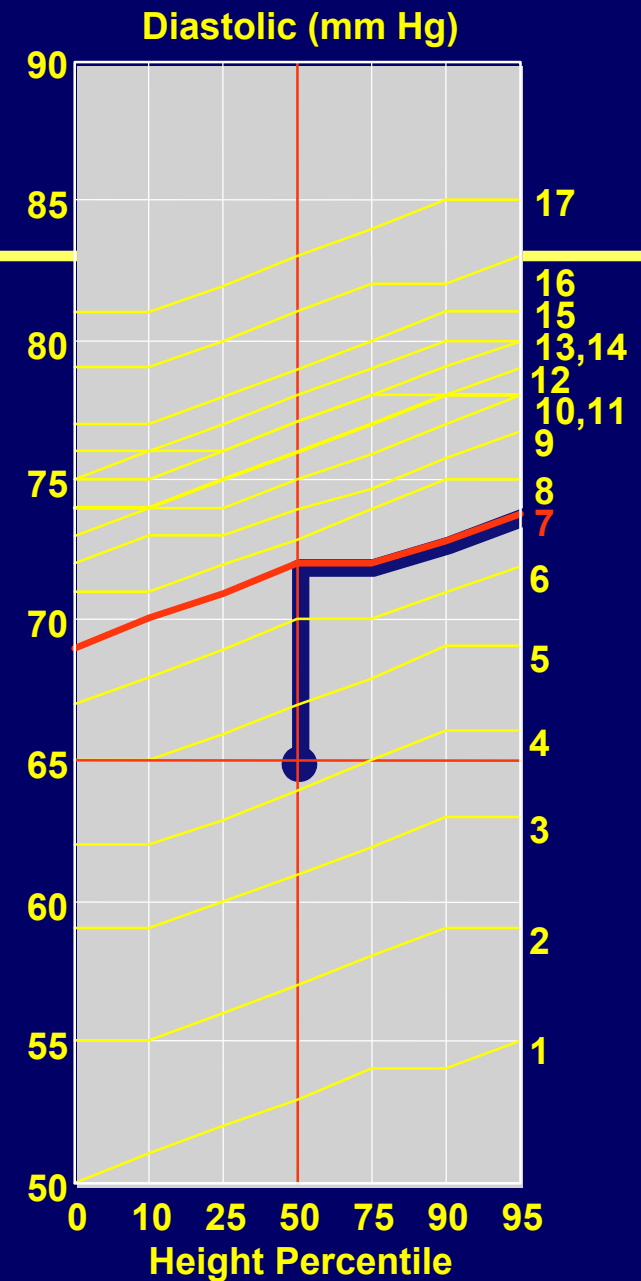




## Using the Charts: Example

**Result:** Moving down on 90th percentile chart denotes “normal BP.”

5. Repeat Steps 1-4 for SBP on 90th percentile chart.



## Using the Charts: Example

1. Use chart for 90th percentile SBP for boys.
2. Find age (7) on right side of chart for SBP.

